

## CLAIMS

1. A method for regulating expression of amyloid precursor protein in a cell, said method comprising regulating expression of an ABC transporter.
2. The method of claim 1, wherein said cell is a brain cell.
3. The method of claim 1, wherein said ABC transporter is ABCB9.
4. The method of claim 1, wherein said ABC transporter is ABCG4.
5. The method of claim 1, wherein said ABC transporter is ABCG1.
6. The method of claim 1, comprising contacting said ABC transporter with an antisense oligonucleotide, capable of binding specifically to a polynucleotide encoding said ABC transporter, wherein the expression of the amyloid precursor protein is regulated.
7. The method of claim 1, comprising contacting said ABC transporter with a small molecule or peptide, wherein the expression of the amyloid precursor protein is regulated.
8. A method of regulating expression of amyloid precursor protein in a cell, said method comprising regulating the activity of an ABC transporter in said cell.
9. The method of claim 8, wherein said cell is a brain cell.
10. The method of claim 8, wherein said ABC transporter is ABCB9.
11. The method of claim 8, wherein said ABC transporter is ABCG4.

12. The method of claim 8, wherein the ABC transporter is ABCG1.

13. The method of claim 8, comprising contacting said ABC transporter with a small molecule or peptide, capable of binding specifically to a polynucleotide encoding said ABC transporter, wherein the expression of the amyloid precursor protein is regulated.

14. The method of claim 1 or 8, wherein said cell is located in a human host afflicted by a condition characterized by accumulation of  $\beta$ -amyloid in a least one tissue or organ.

15. The method of claim 14, wherein said condition is Alzheimer's disease.

16. A method of determining whether a human host is afflicted with a condition suitable for treatment with an agent that regulates expression of amyloid precursor protein, comprising measuring the expression level of an ABC transporter in a brain cell of said host, comparing said expression with the expression level in normal cells, wherein if the expression level in the cells from said human host is higher than the normal expression level, treatment with said agent is suitable for said human.

17. A method of determining whether a human host is afflicted with a condition suitable for treatment with an agent that regulates activity of amyloid precursor protein, comprising measuring the activity level of an ABC transporter in a brain cell of said host, comparing said activity with the activity level in normal cells, wherein if the activity level in the cells from said human host is higher than the normal activity level, treatment with said agent is suitable for said human.

18. A non-human transgenic animal comprising an exogenous ABC transporter sequence stably introduced into the genome of said animal, wherein the expression of

amyloid precursor protein is increased relative to the expression level in a corresponding non-transgenic animal.

19. A method of identifying an agent capable of decreasing amyloid precursor protein expression whereby said expression is modulated by ABC transporter expression or activity, said method comprising treating the transgenic animal of claim 18 with said agent and assaying the expression of amyloid precursor protein before and after said treatment.

100103.402